

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Initial preparation date: : 01.11.2015**Molybdenum Indicator Solvent****SECTION 1: Identification of the substance/mixture and of the supplier****Product name:** Molybdenum Indicator Solvent**Manufacturer/Supplier Article number:** MO1591SS**Recommended uses of the product and restrictions on use:****Manufacturer Details:**

AquaPhoenix Scientific, Inc.
860 Gitts Run Road
Hanover, PA 17331
1-717-632-1291

Emergency telephone number:**ChemTel: (24-hour)**

+1(800)255-3924

+1(813)248-0585 (International)

SECTION 2: Hazards identification**Classification of the substance or mixture:****Flammable**

Flammable liquids, category 2

**Health hazard**

Specific target organ toxicity following single exposure, category 1

**Irritant**

Acute toxicity (oral, dermal, inhalation), category 4

Flammable liq. 2.

AcTox Inhaln 4.

STOT SE 1.

Signal word: Danger**Hazard statements:**

Highly flammable liquid and vapour.

Harmful if inhaled.

Causes damage to organs.

Precautionary statements:

If medical advice is needed have product container or label at hand.

Keep out of reach of children.

Read label before use.

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Use explosion-proof electrical/ventilating/light/.../equipment.

Avoid breathing dust/fume/gas/mist/vapors/spray.

Wear protective gloves/protective clothing/eye protection/face protection.

Ground/bond container and receiving equipment.

Keep container tightly closed.

Use only non-sparking tools.

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Take precautionary measures against static discharge.
 Wash thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Use only outdoors or in a well-ventilated area.
 Do not breathe dust/fume/gas/mist/vapors/spray.
 Specific treatment (see ... on this label).
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 Call a POISON CENTER or doctor/physician if you feel unwell.
 IF exposed: Call a POISON CENTER or doctor/physician.
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
 In case of fire: Use ... for extinction.
 Store in a well ventilated place. Keep cool.
 Store locked up.
 Dispose of contents/container.

Other Non-GHS Classification: None**SECTION 3: Composition/information on ingredients****Ingredients:**

Ingredients:		
CAS 64-17-5	Ethanol	80 %
CAS 67-56-1	Methanol	20 %
Percentages are by weight		

SECTION 4: First aid measures**Description of first aid measures****After inhalation:**

Move exposed individual to fresh air. Loosen clothing as necessary and position individual in a comfortable position. Seek medical attention immediately. If breathing is difficult give oxygen. Give artificial respiration if necessary.

After skin contact:

Wash affected area with soap and water. Rinse/flush exposed skin gently using water for 15-20 minutes. Seek medical attention if irritation persists or if concerned.

After eye contact:

Protect unexposed eye. Immediately flush eyes with water for at least 15 minutes. Immediately get medical assistance. Remove contact lens(es) if able to do so during rinsing.

After swallowing:

Rinse mouth thoroughly. Immediately get medical assistance. Do not induce vomiting. Have exposed individual drink sips of water.

Most important symptoms and effects, both acute and delayed:

Headache. Shortness of breath. Irritation. Nausea.

Indication of any immediate medical attention and special treatment needed:

If seeking medical attention, provide SDS document to physician. Physician should treat symptomatically.

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Molybdenum Indicator Solvent**SECTION 5: Firefighting measures****Extinguishing media****Suitable extinguishing agents:**

Dry chemical, foam, dry sand, or Carbon Dioxide. Water spray can keep containers cool.

Unsuitable extinguishing agents:

Water may be ineffective.

Special hazards arising from the substance or mixture:

Risk of ignition. Moderate explosion hazard. Dangerous fire hazard when exposed to heat, sparks, and open flames. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Containers may explode when heated.

Advice for firefighters:**Protective equipment:**

SCBA is recommended for Fire Fighters. Refer to Section 8.

Additional information (precautions):

Remove all sources of ignition. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Take precautions against static discharge.

SECTION 6: Accidental release measures**Personal precautions, protective equipment and emergency procedures:**

Use spark-proof tools and explosion-proof equipment. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above. Ensure adequate ventilation to ensure the Lower Explosive Limit (LEL) is not reached. Use personal protective equipment. Avoid contact with eyes, skin, and clothing.

Environmental precautions:

Prevent from reaching drains, sewer or waterway. Should not be released into environment. Ethanol has a slight acute and chronic toxicity to aquatic life.

Methods and material for containment and cleaning up:

If necessary use trained response staff or contractor. Wear protective eyewear, gloves, and clothing. Remove all sources of ignition. Contain spill. Use non-sparking equipment. Refer to Section 8. Refer to Section 13. Do not flush to sewer. Absorb with a noncombustible absorbent material such as sand or earth and containerize for disposal. Use spark-proof tools and explosion-proof equipment. Follow proper disposal methods.

Reference to other sections: None

SECTION 7: Handling and storage**Precautions for safe handling:**

Use in a chemical fume hood. Wash hands before breaks and immediately after handling the product. Take precautions against static discharge. Do not eat, drink, smoke, or use personal products when handling chemical substances. Avoid contact with skin, eyes and clothing. Empty containers can still be hazardous since they retain product residue and potential flammable vapors. Refer to Section 8 for Personal Protective Equipment Information.

Conditions for safe storage, including any incompatibilities:

Store in a cool location. Store in a secure flammable storage area away from sources of ignition. Provide ventilation for containers. Keep container tightly closed. Protect from freezing and physical damage. Methanol and Ethanol are both NFPA Class 1B Flammables. Store with like hazards.

SECTION 8: Exposure controls/personal protection

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Molybdenum Indicator Solvent**Control parameters:**

67-56-1, Methanol., ACGIH: 250 ppm STEL; 200 ppm TWA.
 67-56-1, Methanol., NIOSH: 250 ppm STEL; 325 mg/m³ STEL.
 67-56-1, Methanol., NIOSH: 200 ppm TWA; 260 mg/m³ TWA.
 64-17-5, Ethanol, Denatured , ACGIH TLV: 1880 mg/m³.
 64-17-5, Ethanol, Denatured , OSHA PEL: 1900 mg/m³.

Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling. Ensure that dust-handling systems (exhaust ducts, dust collectors, vessels, and processing equipment) are designed to prevent the escape of dust into the work area.

Respiratory protection:

Use in a chemical fume hood. If exposure limit is exceeded, a full-face respirator with organic cartridge may be worn. Not required under normal conditions of use. Use suitable respiratory protective device when high concentrations are present. If exposure limit is exceeded, a full-face respirator with organic cartridge may be worn.

Protection of skin:

Select glove material impermeable and resistant to the substance.

Eye protection:

Safety glasses with side shields or goggles.

General hygienic measures:

Perform routine housekeeping to prevent dust generation. Before re-wearing, wash contaminated clothing. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin. Perform routine housekeeping.

SECTION 9: Physical and chemical properties

Appearance (physical state, color):	Clear liquid	Explosion limit lower:	No data
		Explosion limit upper:	No data
Odor:	Alcohol-like	Vapor pressure at 20°C:	No data
Odor threshold:	~2 ppm	Vapor density:	No data
pH-value:	No data	Relative density:	No data
Melting/Freezing point:	No data	Solubilities:	Water soluble
Boiling point/Boiling range:	No data	Partition coefficient (n-octanol/water):	No data
Flash point (closed cup):	>=11 C	Auto/Self-ignition temperature:	No data
Evaporation rate:	No data	Decomposition temperature:	No data
Flammability (solid, gaseous):	No data	Viscosity:	a. Kinematic: No data b. Dynamic: No data
Density at 20°C:	No data		

SECTION 10: Stability and reactivity**Reactivity:**

Vapours may form explosive mixture with air.

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Stable under normal conditions.

Possible hazardous reactions:

None under normal processing. Vapours may form explosive mixture with air.

Conditions to avoid:

Excess heat, Incompatible Materials, flames, or sparks.

Incompatible materials:

Oxidizing agents, reducing agents, alkali metals, acids, sodium, potassium, metals as powders, acid chlorides, acid anhydrides, powdered magnesium, aluminum, bromine pentafluoride, potassium dioxide, acetyl bromide, and acetyl chloride. Heat, sparks, open flames, platinum.

Hazardous decomposition products:Carbon oxides (CO, CO₂). Acrid and irritating fumes.**SECTION 11: Toxicological information****Acute Toxicity:****Dermal:**

64-17-5 Ethanol LD-50 15800 mg/kg (rabbit).

Methanol 67-56-1 LD50 Dermal 17,100 mg/kg (rabbit).

Chronic Toxicity: No additional information.**Skin corrosion/irritation:** No additional information.**Serious eye damage/irritation:**

irritating to eyes and skin.

Respiratory or skin sensitization: No additional information.**Carcinogenicity:** No additional information.**Germ cell mutagenicity:** No additional information.**Reproductive Toxicity:**

Have occurred in experimental animals

STOT-single and repeated exposure: No additional information.**Additional toxicological information:**

No additional information.

SECTION 12: Ecological information**Ecotoxicity:**

Aquatic Tox., Ethanol has a slight acute and chronic toxicity to aquatic life.

Freshwater Fish, 96 Hr LC50 Pimephales promelas: 28200 mg/L.

Freshwater Fish, 96 Hr LC50 Oncorhynchus mykiss: 19500 - 20700 mg/L.

Freshwater Fish, 96-Hr LC50 Pimephales promelas: > 100 mg/L.

Freshwater Fish, 96 Hr LC50 Oncorhynchus mykiss: 18 - 20 mL/L.

Freshwater Fish, 96 Hr LC50 Lepomis macrochirus: 13500 - 17600 mg/L.

Persistence and degradability:

Not persistent.

Bioaccumulative potential:

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Not expected to bio accumulate.

Mobility in soil:

Aqueous solution has high mobility in soil.

Other adverse effects: No additional information.**SECTION 13: Disposal considerations****Waste disposal recommendations:**

It is the responsibility of chemical waste generators to consult local, regional, and national hazardous waste regulations to ensure waste is properly characterized. Absorb with suitable material and containerize for disposal. Ventilate area of spill. Have fire extinguishing agent available in case of fire. Eliminate all sources of ignition. Use non-sparking equipment.

SECTION 14: Transport information**US DOT****UN Number:**

ADR, ADN, DOT, IMDG, IATA

1993

Limited Quantity Exception:

None

Bulk:**RQ (if applicable):** None**Proper shipping Name:** FLAMMABLE LIQUID, TOXIC, N.O.S. (ETHANOL, METHANOL).**Hazard Class:** 3, 6**Packing Group:** II.**Marine Pollutant (if applicable):** No additional information.**Comments:** None**Non Bulk:****RQ (if applicable):** None**Proper shipping Name:** FLAMMABLE LIQUID, TOXIC, N.O.S. (ETHANOL, METHANOL).**Hazard Class:** 3, 6**Packing Group:** II.**Marine Pollutant (if applicable):** No additional information.**Comments:** None**SECTION 15: Regulatory information****United States (USA)****SARA Section 311/312 (Specific toxic chemical listings):**

Acute, Chronic, Fire

SARA Section 313 (Specific toxic chemical listings):

67-56-1 Methanol.

RCRA (hazardous waste code):

67-56-1 Methanol U154.

TSCA (Toxic Substances Control Act) :

All ingredients are listed.

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):

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67-56-1 Methanol 5000.

Proposition 65 (California):**Chemicals known to cause cancer:**

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

Chemicals known to cause developmental toxicity:

67-56-1 Methanol.

64-17-5 Ethanol.

Canada**Canadian Domestic Substances List (DSL) :**

All ingredients are listed.

SECTION 16: Other information

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material. Note. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material. This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. Note.

NFPA: 1-0-0**HMIS:** 1-0-0**GHS Full Text Phrases:** None**Abbreviations and Acronyms:**

IMDG	International Maritime Code for Dangerous Goods.
PNEC.	Predicted No-Effect Concentration (REACH).
CFR	Code of Federal Regulations (USA)
SARA	Superfund Amendments and Reauthorization Act (USA).
RCRA.	Resource Conservation and Recovery Act (USA).
TSCA.	Toxic Substances Control Act (USA).
NPRI	National Pollutant Release Inventory (Canada).

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DOT	US Department of Transportation.
IMDG	International Maritime Code for Dangerous Goods.
PNEC.	Predicted No-Effect Concentration (REACH).
CFR	Code of Federal Regulations (USA)
IATA	International Air Transport Association.
SARA	Superfund Amendments and Reauthorization Act (USA).
RCRA.	Resource Conservation and Recovery Act (USA).
TSCA.	Toxic Substances Control Act (USA).
NPRI	National Pollutant Release Inventory (Canada).
DOT	US Department of Transportation.
IATA	International Air Transport Association.
GHS	Globally Harmonized System of Classification and Labelling of Chemicals.
ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstracts Service (division of the American Chemical Society).
NFPA	National Fire Protection Association (USA).
GHS	Globally Harmonized System of Classification and Labelling of Chemicals.
HMIS	Hazardous Materials Identification System (USA).
WHMIS	Workplace Hazardous Materials Information System (Canada).
DNEL	Derived No-Effect Level (REACH).
ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstracts Service (division of the American Chemical Society).
NFPA	National Fire Protection Association (USA).
HMIS	Hazardous Materials Identification System (USA).
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